

Remarks

Prosecution of the instant application has been assumed by the firm of Foley & Lardner LLP. Please note the change in customer number and attorney docket number.

Claim 35 has been amended to correct the punctuation. No new matter has been introduced by this amendment.

Claim 31 has been cancelled. Applicant preserves the right to prosecute the cancelled claim, and those of equivalent or even greater scope in related applications.

Affirmation of Election

Applicant hereby affirms the previous verbal election per a telephone conference on September 2, 2005 between Examiner Sorkin and Attorney for Applicant, of Group 1 claims 1-38. Claims 39-48 have been withdrawn as being drawn to non-elected inventions. Applicant preserves the right to prosecute the withdrawn claims, and those of equivalent or even greater scope in related applications.

Objections to the Drawings

Figures 4 and 5 of the drawings are objected to under 37 CFR 1.121(d) as illustrating prior art. These figures have been re-labeled as "prior art" as requested, and replacement sheets are provided herewith. Accordingly, Applicant requests withdrawal of this objection to the Drawings.

Objections to the Claims

The Office has objected to claim 35 as not ending with a period. Applicant has amended claim 35 to correct the punctuation.

Claim 31 is objected to as being a substantial duplicate of claim 30. Applicant hereby cancels claim 31.

Applicant believes these actions cure the deficiencies objected to and do not add new matter to the claims. Accordingly, Applicant requests withdrawal of these objections to the claims.

Rejections Under 35 USC §102(b)

The claims stand rejected under 35 USC §102(b) in view of various references which will be

discussed in turn. Applicant believes that the amendments to the claims render all such rejections moot, and respectfully requests withdrawal of the 102(b) rejections.

A. US 3,675,846 to Drucker

Claims 1-6, 11, 13-18, 24-29 and 34 stand rejected under 35 USC §102(b) as being anticipated by US Patent 3,675,846 to Drucker (“Drucker”).

The Office has construed Drucker as disclosing a bag having a central opening which includes an integrally formed first mating portion mating with a corresponding second mating portion of a hub. This is purported to anticipate claims 1, 13, and 24. Applicant respectfully disagrees with this characterization. There is no discussion in the Drucker specification about the bag having integral features. In Drucker, the sole discussion of the bag is as follows: “A plastic bag is suspended around a neck 55a on the central bracket 55 so that the ends of the inlet conduit 66 and the pick-up pipe substantially fills the chamber 50. The bag rotates with the chamber and serves as a liner for the chamber, and as a receptacle for the sediment removed from the sample. The bag may be supported by cords around its neck and around the neck 55a of the bracket, or by an O-ring in the upper annular groove 55b.” (column 2, lines 52-60). Figure 3 simply illustrates the bag following the contours of the central bracket 55. Nothing in the drawing or the specification discusses the bag having an integrally formed first mating portion, as is claimed by Applicant.

The Office asserts that as to claims 2, 14, and 25, the first mating portion comprises an integrally molded radial barrier. As described above, there is no mention in Drucker that the radial barrier be integral to the bag, as is claimed by Applicant.

The Office asserts that as to claims 3, 15, and 26 the first mating portion comprises one or more recesses. Again, Figure 3 simply illustrates the bag following the contours of the central bracket 55. The bag illustrated therein does not comprise integral mating features. Claims 3, 15 and 26 specify that the bag have a first mating portion comprised of one or more recesses. The bag illustrated in Drucker is continuous with the periphery of the central bracket 55, and does not illustrate one or more recesses, as is claimed by Applicant.

The Office also asserts that as to claims 4, 16 and 27, that the first mating portion comprises one or more raised areas. As discussed above, the bag illustrated and described by Drucker is continuous with the periphery of the central bracket 55, and does not illustrate one or more raised

areas, as is claimed by Applicant.

The Office also asserts that as to claims 5, 17, and 28, that Drucker teaches the radial barrier comprises a circumferential ring of raised material. For the reasons given, Applicant disagrees with this interpretation.

The Office also asserts that as to claims 6, 18, and 29, Drucker teaches the radial barrier comprises a circumferential recess. For the reasons given, Applicant disagrees with this interpretation.

Regarding claim 34, the Office asserts that Drucker discloses a method for sealing a centrifuge bag to a hub comprising providing a bag with a substantially circular opening, providing a hub with a second mating portion corresponding to a first mating portion on the bag, placing the hub within the bag opening, and mating the first and second mating portions. Applicant disagrees with the characterization of Drucker to the extent Drucker is offered as teaching a bag having integral mating features. Accordingly, Applicant believes that Drucker can't anticipate the claimed method, since Drucker can't be interpreted to teach the steps of mating the first mating portion on the bag with the second mating portion on the hub.

For the reasons given Applicant respectfully asserts that Drucker does not disclose each element of claims 1-6, 11, 13-18, 24-29 and 34. As such Drucker can't anticipate these claims. Applicant respectfully requests withdrawal of this rejection.

B. US 4,610,369 to Mercier

Claims 1-23 stand rejected under 35 USC §102(b) as being anticipated by US Patent 4,610,369 to Mercier ("Mercier"). Applicant respectfully traverses this rejection in view of the claims as amended.

The Office asserts that Mercier discloses a bag comprising a substantially circular enclosure having a central opening, wherein the central opening includes an integrally molded radial barrier. The Office further asserts that the first mating portion comprises an integrally molded radial barrier, and that it further comprises one or more recesses or raised areas adjacent to the opening. The Office further asserts that the bag includes a first side and a second side having a respective opening, and each side including a first mating portion. Lastly, the Office asserts the bag further comprises a weld ring. Applicant respectfully disagrees with this interpretation of Mercier.

First, Mercier does not disclose a “bag”, it describes the use of a bellows 33, and that “at least one of the walls of the convolutions 34a, 34b, and 34c, and preferably both walls each has a plurality of apertures or passageways 44, 44’ therethrough (column 4, lines 29-32). The bellows taught by Mercier is not suitable for use in centrifugal processing, as is claimed by Applicant. While the Office points out that the manner in which the bag is intended to be used is not germane to the patentability of the bag, Applicant suggests that it is germane to whether Mercier teaches the claimed invention. Mercier would not be read by a skilled artisan as disclosing a bag, but rather a bellows. Applicant claims a bag.

Second, the flange taught by Mercier is different from the integral seal claimed by Applicant in several respects. Mercier states that “each of the walls 35, 37’ has an outwardly extending flange 39, 40 which snugly encompasses the outer surface 38 of the guide tube 27.” (column 4, lines 12-15). Similarly, the “outer surfaces of flanges 39 and 40 has an annular groove 41 in which is positioned an “O” ring 42 securely to retain the associated flange in position forcing a portion of the flange material into an associated annular groove 42’ in the tube 27. This is different from Applicant’s claimed centrifuge bag having the integral seal. Mercier teaches the bellows is secured into a groove on the tube through compressive force of an O ring. Applicant’s bag has an integrally formed feature that engages the hub, and which does not require a O ring for compression. Also, in Applicant’s invention, the claimed first mating portion provides direct engagement to the second mating portion on the hub, unlike Mercier, in which the annular groove faces outward, away from the guide tube.

With respect to the assertion that Mercier teaches a weld ring proximate to the opening of the first side of the bag, Applicant respectfully disagrees this element is taught by Mercier. A thorough review of the specification fails to identify a single use of the word “weld”. Likewise, there is no mention of “welding” either with heat or with solvents, that would have suggested the use of weld rings to one skilled in the art. The only “ring” mentioned in Mercier (other than the O-rings) is a snap ring 28, that retains the tube 27 in the fitting 14 (see, column 3 lines 56-58). This ring is distal from the bladder assembly. In contrast, Applicant’s invention uses a weld ring to lock the bag to the centrifuge hub—it’s in direct contact with the bag and the hub.

Applicant respectfully asserts that Mercier does not anticipate the instant claims, and requests withdrawal of this rejection.

C. US 2002/0107131 to Jorgensen and Rosiello

Claims 1-29 and 34 stand rejected under 35 USC §102(b) as being anticipated by US Patent application 2002/0107131 to Jorgensen and Rosiello ("Jorgensen"). Applicant in the present case, is Mr. Keith Rosiello, the co-inventor of the subject matter disclosed and claimed in Jorgensen. Applicant is also the Vice President of Operations for Zymequest, Inc., the assignee of both the instant application and Jorgensen.

Applicant is a highly experienced engineer, who is responsible for and thoroughly familiar with all aspects of the company's technology, with the technology disclosed in Jorgensen, and with the claims set forth in the instant application. Applicant asserts that the Jorgensen patent application does not disclose a centrifuge bag having integrally formed first mating features. The present application is an improvement on the Jorgensen technology, and the integral features claimed in the present application represent an evolution of this product line that help seal the centrifuge bag to the hub, preventing leaks and enhancing performance. Applicant would be able to provide a Declaration attesting to the lack of disclosure in Jorgensen of the integral mating portions for the bag set and hub. No such Declaration has been submitted herewith, since the Applicant believes upon reconsideration the Office will clearly recognize the differences between the instant application and the Jorgensen reference.

Applicant respectfully asserts that Jorgensen does not anticipate the instant claims, and requests withdrawal of this rejection.

Rejections Under 35 USC §103(a)

The claims stand rejected under 35 USC §103(a) in view of various references which will be discussed in turn. Applicant hereby traverses the rejections, and respectfully requests withdrawal of the 103(a) rejections, in consideration of the following arguments.

A. US 2002/0107131 to Jorgensen et al.

Claims 35-38 stand rejected under 35 USC §103(a) as being unpatentable over Jorgensen. The Office asserts that Jorgensen teaches by implication, a process of welding a bag to a weld ring through solvents or heat. Assuming *arguendo* that it does, Jorgensen still does not teach or imply a bag having integral sealing features, and the claimed method that includes the steps of welding the

first mating portion to the second mating portion. The first and second mating portions are absent in Jorgensen. Since the integrally formed first mating portion is the part of the bag being welded to the second mating portion on the hub, Jorgensen can't be read as disclosing the claimed method of sealing a centrifuge bag to the hub, in which the claimed method includes the steps of welding the first mating portion to the second mating portion. Accordingly, Jorgensen itself cannot be used to establish a prima facie case of obviousness against the claimed invention.

Applicant respectfully asserts that Jorgensen itself does not render the instant claims obvious, and requests withdrawal of this rejection.

B. Jorgensen in view of US Patent 3,982,691 to Schultz

Claims 30-33 stand rejected under 35 USC §103(a) as being unpatentable over Jorgensen in view of US Patent 3,982,691 to Schultz ("Schultz"). The Office's characterization of Jorgensen is discussed above. The Office characterizes Schultz as teaching the use of adhesives to join the centrifuge bag components, but it does not offer Schultz with respect to any particular distinctive elements of the centrifuge bag components itself. Thus, Schultz does not cure the deficiencies of Jorgensen, which does not itself disclose Applicant's claimed centrifuge bag *i.e.*, when taken in combination, the two references do not disclose or imply a centrifuge bag having integrally formed first mating features. Since Jorgensen and Schultz in combination do not disclose each and every element of the claimed invention, these two references, alone or in combination cannot be used to establish a prima facie case of obviousness against the invention as claimed by the Applicant.

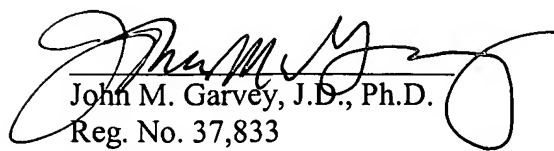
Applicant respectfully asserts that Jorgensen in view of Schultz does not render obvious the instant claims, and requests withdrawal of this rejection.

Conclusion

Applicant submits that the present application is in condition for allowance and such action is respectfully requested. Should any questions or issues arise concerning the application, the Examiner is encouraged to contact the undersigned at the telephone number 617-342-4000. The Commissioner is hereby authorized to charge payment of any filing fees required in connection with the papers transmitted herewith, or credit any overpayment of same, to Deposit Account No. 50-3431 (Reference No. ZQI-129US).

Respectfully submitted,

Date: February 10, 2006

A handwritten signature in black ink, appearing to read "John M. Garvey", is written over a horizontal line.

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